.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 29 January 2004 (29.01.2004)

PCT

(10) International Publication Number WO 2004/009826 A3

(51) International Patent Classification⁷: C12N 1/12

C12P 7/64,

(74) Agent: OGILVY RENAULT; Suite 1600, 1981 McGill College Avenue, Montreal, Québec H3A 2Y3 (CA).

(21) International Application Number:

PCT/CA2003/001100

(22) International Filing Date: 22 July 2003 (22.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 2,395,622

22 July 2002 (22.07.2002) CA

- (71) Applicants (for all designated States except US): UNI-VERSITÉ DE SHERBROOKE [CA/CA]; 2500, boul. Université, Sherbrooke, Québec J1K 2R1 (CA). UNI-VERSITÉ LAVAL [CA/CA]; Cité Universitaire, Québec, Québec G1K 7P4 (CA). RIVAL S.E.C. [CA/CA]; 550, rue Sherbrooke Ouest, Bureau 100, Montréal, Québec H3A 1B9 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): TREMBLAY, Réjean [CA/CA]; 104 du Parc, Grande-Rivière, Québec GOC 1V0 (CA). PERNET, Fabrice [CA/CA]; 71, rue Penouil, C.P. 618, Carleton, Québec GOC 1J0 (CA). BOURGET, Edwin [CA/CA]; 3322, place François-Baillargé, Ascot, Québec J1K 3B4 (CA).

- GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

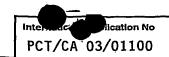
with international search report

(88) Date of publication of the international search report: 6 May 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.







A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12P7/64 C12N1/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 C12P

Documentation searched other than minimum documentation to the extent that such documents are included. In the fields searched

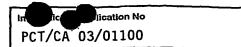
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, CHEM ABS Data

Category °	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.
Χ	WO 91/14427 A (MARTEK CORP)	1-8
	3 October 1991 (1991-10-03)	
1	abstract	1
	page 6, paragraph 1	{
	page 9, line 17 - page 11, line 3	
	example	
Α	LOMBARDI A T ET AL: "INFLUENCE OF	1_0
	PHOSPHORUS AND SILICON ON LIPID CLASS	1-8
	PRODUCTION BY THE MARINE DIATOM	
	CHAETOCEROS-GRACILIS GROWN IN THE	1
	TURBIDOSTAT CAGE CULTURES"	ł
	MARINE ECOLOGY PROGRESS SERIES,	ì
	vol. 77, no. 1, 1991, pages 39-47,	İ
	XP0008026897	ļ
	ISSN: 0171-8630 the whole document	
	the whore document	
	-/	
	·	1

Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
Special categories of cited documents: A' document defining the general state of the art which is not considered to be of particular relevance E' earlier document but published on or after the international filing date L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O' document referring to an oral disclosure, use, exhibition or other means P' document published prior to the international filing date but later than the priority date claimed	 "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search 29 January 2004	Date of mailing of the international search report 06/02/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Lejeune, R





		PC1/CA 03/01100			
C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT					
Category °	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.		
A .	LOMBARDI A T ET AL: "Particulate lipid class composition of three marine phytoplankters Chaetoceros gracilis, Isochrysis galbana (Tahiti) and Dunaliella tertiolecta grown in batch culture" HYDROBIOLOGIA, vol. 306, no. 1, 1995, pages 1-6, XP0008026898 & ISSN: 0018-8158 the whole document		1-8		
·					
	·				
	210 (continuation at second sheet) (July 1992)				

INTERNATION SEARCH REPORT

information on patent family members

	Inter plication No
ļ	PCT/CA 03/01100

Patent document cited in search report		Publication Patent family date member(s)		Publication date	
WO 9114427	A	03-10-1991	US AT CA DE DE EP JP WO US	5244921 A 195420 T 2078664 A1 69132370 D1 69132370 T2 0521104 A1 5505726 T 9114427 A1 5567732 A	14-09-1993 15-09-2000 22-09-1991 21-09-2000 29-03-2001 07-01-1993 26-08-1993 03-10-1991 22-10-1996